

ABSTRACT OF THE DISCLOSURE

In order to accurately monitor changes in exposure conditions (changes in exposure level and focus) at a product wafer level during lithography, changes in exposure conditions can be calculated by acquiring electron beam images of a first pattern portion and a second pattern portion different from one another in terms of the tendency of the changes in dimensional characteristic quantities against the changes in exposure conditions, then calculating the respective dimensional characteristic quantities of the first pattern portion and the second pattern portion, and applying these dimensional characteristic quantities to the models which logically link the exposure conditions and the dimensional characteristic quantities. Hereby, it is possible to supply the process conditions change monitoring systems and methods that enable output of accurate changes in exposure level and focus.

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